

*Fig 98*

KALMAN

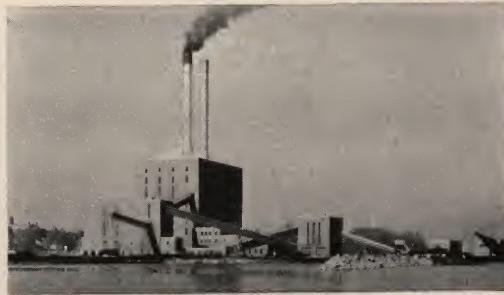
FLOOR

dense, heavy-duty granolithic  
cement floor topping

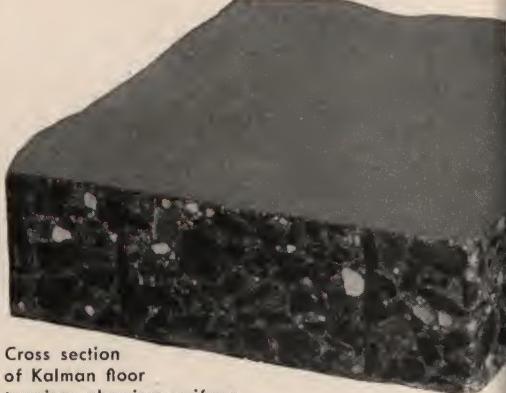




COMMERCIAL BUILDING



POWER HOUSE



Cross section  
of Kalman floor  
topping, showing uniform  
distribution of aggregate and density.



WAREHOUSE



HOSPITAL



R. R. FREIGHT HOUSE



INDUSTRIAL PLANT



28 years without maintenance cost. Kalman floors and platforms of this freight terminal have withstood unusually severe usage since 1921.



CHEMICAL PLANT



NEWSPAPER PLANT



20 years of service, no repairs needed. Since 1929, over a million square feet of Kalman floors in this railroad warehouse have handled 3500 tons daily on steel wheel trucks.



FOOD PRODUCTS



COLLEGE

**OVER 250 MILLION SQUARE FEET NOW IN SERVICE**

# KALMAN FLOORS

## **Kalman absorption process cement floor topping**

The Kalman absorption process is a method of installing a theoretically correct, low-water ratio concrete topping which produces a uniformly hard, wear-resistant floor. Because of this absorption process, Kalman floors remain free from disintegration and dusting. They are of maximum density, even texture and unexcelled durability.

For over 30 years, KALMAN FLOOR COMPANY has specialized in this type of cement finish floors. Each job, in every phase of the work, is handled by their own capable, experienced, skilled workmen, under expert supervision.

Kalman methods assure positive results. This is due to the care taken in cleaning the under slab, selection and mixing of materials, proper fortification for excessive traffic, control of water content, compacting and troweling.

## **water absorption control procedure**

The outstanding feature of Kalman floors is the **water absorption control**:

**first:** Sufficient water is used in the mixture to start full hydration of every particle of cement; also to assure a dense mix and thorough coating of the aggregates with the cement.

**second:** During absorption process, the water content is reduced to the minimum at which the cement will set and bring the concrete to the most favorable condition. The water is extracted uniformly—free from intermittent wet spots. As the topping is being processed, it is densified and pre-shrunk, developing maximum strength and producing concrete of the highest possible compressive value.

**third:** The Kalman process of controlled removal of free water, permits the surfacing operations of compacting and troweling to be started within ten to thirty minutes after screeding.

By this process, surfacing is completed in advance of the critical stage in the setting of the cement—thus removing all danger of loss of surface quality through disturbances of the crystallizing process created by evaporation.

These factors assure a toughness and resistance to disintegration far above that developed in a concrete allowed to set in the ordinary way.

## **advantages of Kalman floors**

**maximum toughness**—the most important factor in floors—attained through the greater strength and density—secured uniformly throughout the entire floor area, is the result of the Kalman process.

**minimum porosity**—assured through the water absorption control procedure.

**density**—uniform in density and aggregate, affording a surface free of disintegration and shrinkage.

**sanitary and impervious surface**—assured by the Kalman process, mechanical compacting and final surfacing by several hand trowelings. The surface is smooth, hard and of uniformly fine texture with minimum absorption.

## **variety of applications**

**heavy duty Kalman floors**—Ideal for heavy-duty service in warehouses, power plants, railroad terminals and practically every kind of industrial building.

Kalman floors have been installed in an exceptionally wide range of institutional buildings such as insane asylums, police stations, hospitals, schools, universities, stores and other types of buildings where a highly polished, sanitary floor is required. Kalman floors can be laid in any standard cement color. Because of the Kalman process, a rich, deep, uniform coloring is possible. Decorative bases, dadoes, curbs and stairs are formed with Kalman floors and can be installed in matching or contrasting colors.

## **resurfacing**

The Kalman process is particularly adaptable for rehabilitation of other worn out floors. The old surface is scarified or removed, and definite adhesion to the old slab, and a wear resisting surface comparable to a new floor is assured.

## **nationally known users**

A partial list of nationally known users for each of whom over one million to ten million square feet of Kalman floor have been installed over a period of 30 years.

Sears Roebuck & Company  
Montgomery Ward & Company  
duPont de Nemours Company  
General Motors Corporation  
Chrysler Motors Corporation  
Sunshine Biscuits, Inc.  
National Biscuit Company

American Enka Corporation  
U. S. Navy  
D.L. & W.R.R. Co.  
Pennsylvania R.R. Co.  
American Can Company  
Western Electric Company

## **other users**

American Woolen Company  
Commonwealth Edison Co.  
Continental Baking Company  
Firestone Tire & Rubber Co.  
First National Stores  
General Foods Corporation  
Great Atlantic & Pacific Tea Co.  
Atchison, Topeka & Santa Fe Railway Co.  
Baltimore & Ohio Railroad Co.  
Chesapeake & Ohio Railroad Co.  
Chicago, Burlington & Quincy R.R. Co.  
Union Pacific Railroad Co.  
City of Boston, Mass.

City of Buffalo, N. Y.  
U. S. Steel Corp.  
Lever Bros. Company  
Libby-Owens-Ford Glass Co.  
North American Rayon Corp.  
Quaker Oats Company  
Westinghouse Electric & Manufacturing Co.  
City of Cambridge, Mass.  
City of Providence, R. I.  
Commonwealth of Massachusetts  
Harvard University  
State of Connecticut  
State of Maryland  
State of New York  
University of Illinois  
United States Government

## application of Kalman absorption process floors



Kalman concrete topping being screeded and covered with burlap over which sand-cement drying mixture is placed.



After removal of drying mixture, topping is thoroughly compacted by use of disc type motor-driven floats.



Hand floating and steel troweling brings the finish to a smooth, impervious surface, entirely free from blemishes.

## specifications for applying Kalman floors

**scope**—All concrete floor surfaces indicated on the plans, or herein specified to be cement finish, shall be finished by the Kalman Process. This work shall be done by the KALMAN FLOOR COMPANY, 110 East 42nd Street, New York 17, N. Y., or nearest District Office, who will furnish all necessary materials, equipment and labor for full and complete performance of the work in accordance with the following specifications.

**general**—The floor surfaces to be finished shall be turned over to the KALMAN FLOOR COMPANY by the general contractor, broom-cleaned, free from all oil, paint, grease, plaster, mortar or other foreign material, and shall be clear of all stored material, equipment, or other obstructions. The surfaces shall be reasonably true and uniformly even to a level approximately  $\frac{3}{4}$  in. below the required finished floor level.

During the laying of floor finish by the KALMAN FLOOR COMPANY all openings in exterior walls adjoining the area being finished shall be closed and kept closed, and when heat is necessary to keep the interior temperature well above the freezing

point, such heat shall be provided by the general contractor without cost to the KALMAN FLOOR COMPANY.

**preparation of concrete surfaces**—Whenever possible within 24 hours after concrete has been poured, the KALMAN FLOOR COMPANY shall remove laitance and scum from the surface to be finished, leaving the surface clean and rough to insure uniform and sufficient bond when finish is applied.

When surfaces to be finished are inaccessible prior to final set of concrete, laitance and scum shall be removed by the KALMAN FLOOR COMPANY by the mechanical chipping and scouring of the surfaces.

**mixing and laying**—The topping shall be standard Kalman Absorption Process  $\frac{3}{4}$  in. thick installed by the KALMAN FLOOR COMPANY, 110 East 42nd Street, New York 17, N. Y., or nearest branch, and shall include thorough curing.

**special**—We will gladly submit detailed specifications for colored, non-slip or other special types of finish on request.

## KALMAN FLOOR COMPANY, INC.

**home office: 110 East 42nd Street, New York 17, N. Y.**

BOSTON, MASS., 108 Massachusetts Avenue

CHARLOTTE, N. C., 519 Wilder Building

CHICAGO 2, ILL., 111 West Washington Street

CLEVELAND 4, OHIO, 1334 Williamson Building

DAYTON 2, OHIO, 410 West First Street

HOUSTON, TEXAS, 4919 Montrose Boulevard

LOS ANGELES 14, CALIF., 724 South Spring Street

PHILADELPHIA, PA., 1523 Widener Building

SAN FRANCISCO, CALIF., 49 Geary Street

SEATTLE, WASH., 5416 14th Avenue, N.W.

application of Kalman absorption process floors

Digitized by:



ASSOCIATION FOR PRESERVATION TECHNOLOGY

[www.apti.org](http://www.apti.org)

For the

BUILDING TECHNOLOGY HERITAGE LIBRARY

<https://archive.org/details/buildingtechnologyheritagelibrary>

From the collection of:



SOUTHEASTERN ARCHITECTURAL ARCHIVE  
SPECIAL COLLECTIONS  
HOWARD-TILTON MEMORIAL LIBRARY

<http://seaa.tulane.edu>

**KALMAN FLOOR COMPANY, INC.**

home office: 110 East 42nd Street, New York 17, N. Y.

BOSTON, MASS., 108 Massachusetts Avenue

CHARLOTTE, N. C., 519 Wilder Building

CHICAGO 2, ILL., 111 West Washington Street

CLEVELAND 4, OHIO, 1334 Williamson Building

DAYTON 2, OHIO, 410 West First Street

HOUSTON, TEXAS, 4919 Montrose Boulevard

LOS ANGELES 14, CALIF., 724 South Spring Street

PHILADELPHIA, PA., 1523 Widener Building

SAN FRANCISCO, CALIF., 49 Geary Street

SEATTLE, WASH., 5416 14th Avenue, N.W.